UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,929	09/17/2003	Nischal Abrol	030142	6825

23696 7590 01/29/2007	**EXAMINER**	
QUALCOMM INCORPORATED	KARIKARI, KWASI	
5775 MOREHOUSE DR.		
SAN DIEGO, CA 92121	**ART UNIT**	**PAPER NUMBER**
	2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/29/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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us-docketing@qualcomm.com
kascanla@qualcomm.com
t_ssadik@qualcomm.com

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *17 September 2003*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-33* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-33* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *17 September 2003* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some *   c) ☒ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date *01/03/2005*.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   The Art Unit location of your application in the USPTO has changed. To aid in

correlating any papers for this application, all further correspondence regarding this

application should be directed to Art Unit 2617.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter,
> or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

Claims 31-33 are rejected under 35 U.S.C. 101 because the claimed inventions

are directed to non-statutory subject matter. The claimed subject matter in the instant

application fails to define that the processor is include a computer . The Examiner

suggests the claimed limitation should be written as "A computer program embodied on

computer readable medium capable to perform the following step:...".Appropriate

corrections are required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and

the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when

the reference is a U.S. patent resulting directly or indirectly from an international application filed

before November 29, 2000. Therefore, the prior art date of the reference is determined under 35

U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-33 are rejected under U.S.C. 102(e) as being anticipated by

Bertrand et al. (U.S 6,876,640), (hereinafter Bertrand).

Regarding **claims 1 and 20,** Bertrand discloses an apparatus (PDSN), comprising:

a connection table (= PPP register 126 could be any located any where in

system 100, see col. 5, lines 50-67) for storing one or more connection identifiers

(= registration information such as IMSI of mobile station 102, see col. 7, line 57- col.

8, line 23);

a receiver for receiving a connection identifier (= if PPP register 126 does not

have the IMSI, the PDSN will be informed, see col. 6, lines 43-64; whereby the act of

informing is being associated with the "receiving");

a processor (= inherent feature of PDSN) for delivering a received connection

identifier to the connection table for storing when the received connection identifier is

not contained in the connection table (= in response to IMSI unavailable message, the

PPP context is added to the database of PPP register 126, see col. 8, lines 12-34);

and

a transmitter for sending a registration in response to a received connection

identifier when the received connection identifier is not contained in the connection

table (= PPP register 126 will return the previously stored PPP context of mobile

station 102 to PDSN; and the PPP session can be resumed without further creation of

new PPP context, see col. 7, lines 1-19). Bertrand further discussed that a new PPP

context is created if IMSI of the mobile station is not stored in the PPP register 126

(see col. 8, lines 12-34).

Regarding **claim 2,** as recited in claim 1, Bertrand discloses the apparatus wherein

the connection identifier corresponds to a Packet Coordination Function (PCF) (see

col. 7, line 63- col. 8, line 11; whereby the RN 108 is being associated with the "PCF").

Regarding **claim 3,** as recited in claim 1, Bertrand discloses the apparatus further

comprising a timer, wherein the processor removes a connection from the connection

table in response to an expiration of the timer (see col. 7, lines 32-56).

Regarding **claim 4,** as recited in claim 3, Bertrand discloses the apparatus wherein,

wherein the processor resets the timer in response to transmission by the transmitter

on the connection associated therewith (= update the PPP register to prevent time out,

see col. 6, lines 43-64).

Regarding **claim 5,** as recited in claim 3, Bertrand discloses the apparatus wherein,

the processor clears the connection table when a connection is received

corresponding to a Packet Data Serving Node (PDSN) that is different from a PDSN

corresponding to a previously stored connection (see col. 7, lines 33-56).

Regarding **claim 6,** as recited in claim 3, Bertrand discloses the apparatus wherein,

the processor clears the connection table when a clear table message is received by

the receiver (see col. 8, line 60- col. 9, line 38).

Regarding **claims 7 and 23**, Bertrand discloses an apparatus/method, operable with a

plurality of PCFs (RN 108) via a corresponding plurality of connections (112), each

PCF operable to communicate with one or more wireless communication devices

(102), the apparatus further operable with a network (118) for directing data for

transmission to one or more wireless communication devices (see Fig. 1), comprising:

a connection table for storing a plurality of connection sets (= PPP register 126

could be any located any where in system 100, see col. 5, lines 50-67 and col. 6,

lines 10-20), each connection set comprising one or more connections associated with

a wireless communication device (= R-P interface and PPP connection, see Fig. 1);

a processor (= inherent feature of RN 108) for selecting a connection from the

one or more connections in a connection set associated with a wireless

communication device for which data is directed from the network (= complete

negotiation of PPP context of PPP session, see col. 1, lines 65-66 and col. 8, lines 12-

59).

Regarding **claims 8 and 24,** as recited in claims 7 and 23, Bertrand discloses that the

apparatus/method further comprising a buffer (database) for receiving data from the

network, storing the received data, and transmitting the stored data on the selected

connection (see col. 8, lines 12-34).

Regarding **claim 9,** as recited in claim 7, Bertrand discloses the apparatus, wherein

an active connection identifier is stored in the connection table to identify zero or one

active connection for each wireless communication device (see col. 6, lines 43-64).

Regarding **claim 10,** as recited in claim 9, Bertrand discloses the apparatus, wherein

the processor selects all of the connections associated with a wireless communication

device for transmission to the wireless communication device when no connection for

the wireless communication device is identified as active (= creation of new session,

see col. 6, lines 43-64).

Regarding **claim 11,** as recited in claim 9, Bertrand discloses the apparatus, wherein

the processor selects a subset of the connections associated with a wireless

communication device for transmission to the wireless communication device when no

connection for the wireless communication device is identified as active (see col. 6, lines 43-64).

Regarding **claim 12,** as recited in claim 9, Bertrand discloses the apparatus, wherein the processor selects the most recent active connection from the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active (= previous PPP context are used, see col. 7, lines 1-19).

Regarding **claim 13,** as recited in claim 9, Bertrand discloses the apparatus, wherein the processor selects one or more connections randomly from the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active (see col. 7, line 57- col. 8, lines 34).

Regarding **claim 14,** as recited in claim 7, Bertrand discloses the apparatus, further comprising a plurality of timers corresponding to the plurality of stored connections, wherein the processor removes a connection from the connection table upon expiration of one of the plurality of timers associated with the connection (col. 7, lines 32-56).

Regarding **claim 15,** as recited in claim 14, Bertrand discloses the apparatus, wherein

the processor resets one of the plurality of timers in response to an activity indicator

associated with the mobile station on the corresponding connection (see col. 6,

lines 43- 64).

Regarding **claims 16 and 26**, Bertrand an apparatus/method, operable with a PDSN

and a plurality of wireless communication devices, comprising:

a receiver for receiving a transmission from a wireless communication device

(= message 202 is sent to RN 108, see col. 7, lines 63-67);

a processor (inherent) for establishing a connection with the PDSN associated

with the wireless communication device in response to a received transmission

containing a registration (= setting up PPP session between 102 and 120, see col. 7,

line 63- col. 8, line 34; and col. 4, lines 26-35);

a first transmitter for sending an inactive message to the PDSN on the

connection when a pre-determined time period has lapsed since a transmission is

received from the mobile station (see col. 7, lines 32-56 and col. 5, lines 59-67).

Regarding **claims 17 and 27** , as recited in claims 16 and 26, Bertrand discloses that

the apparatus, further comprising a second transmitter for transmitting a clear table

message to the wireless communication device when the PDSN is different from a

PDSN identified in a received transmission from the wireless communication device

(see col. 8, line 60- col. 9, line 38).

Regarding **claim 18** wireless communication system, comprising:

a wireless communication device (102)for receiving a connection identifier (PPP

session) storing the received connection identifier in a connection table, and

transmitting a registration when the received connection is not contained in the

connection table (col. 6, lines 10-23);

a Packet Coordination Function (PCF) (RN 108)for receiving a transmission from

the wireless communication device and initiating a PDSN connection in response to a

received transmission containing a registration (col. 7, line 57- col. 8, line 11); and

a Packet Data Serving Node (PDSN) (120) for establishing a PDSN connection

with the PCF, associated with the wireless communication device (102), in response

to a PDSN connection initiation, storing the connection in one of a plurality of

connection (col. 8, lines 12-34) sets in a connection table, each connection set

comprising one or more connections associated with a wireless communication device

(col. 7, line 57- col. 8, line 34; and col. 5, lines 59-67).

Regarding **claim 19**, as recited in claim 18, Bertrand discloses the wireless

communication system, wherein the PDSN further selects a connection from the one

or more connections in a connection set associated with a wireless communication

device for transmission of data directed to the wireless communication device (= PPP

session, see col. 8, lines 12-34).

Regarding **claim 21,** as recited in claim 20, Bertrand discloses the method further comprising: removing a connection from the connection table in response to expiration of an associated timer (see col. 7, lines 32-56).

Regarding **claim 22,** as recited in claim 20, Bertrand discloses the method further comprising: receiving a clear table message; and clearing the connection table in response to the clear table message (see col. 8, line 60- col. 9, line 38).

Regarding **claim 25,** as recited in claim 23, Bertrand discloses the method further comprising maintaining a plurality of timers corresponding to the plurality of stored connections and removing a connection from the connection table upon expiration of one of the plurality of timers associated with the connection (col. 7, lines 32-56).

Regarding **claims 28 and 31,** Bertrand discloses an apparatus/processor, comprising:

        means for receiving a connection identifier (= connection message sent, col. 7, lines 63-67);

        means for storing the received connection identifier in a connection table when the connection is not contained in the connection table (see col. 7, line 63- col. 8, lines 34); and

        means for registering a connection in response to a received connection not contained in the connection table (see col. 7, line 63- col. 8, line 34; and col. 5, lines

59-67).

Regarding **claims 29 and 32,** Bertrand discloses an apparatus/processor, comprising:

means for establishing one or more connections with one or more PCFs (RN

108) (see col. 4, lines 49-66);

means for storing a plurality of connection sets in a connection table, each

connection set comprising one or more connections with a PCF and associated with a

wireless communication device (= lookup to determine PPP context, see col. 6,

lines 10-22; and col. 6, line 43- col. 7, line 19); and

means for selecting a connection from the one or more connections in a

connection set associated with a wireless communication device for which data is

directed (= resuming of PPP context, see col. 7, lines 10-19 and col. 1, lines 65-66).

Regarding **claims 30 and 33,** Bertrand discloses an apparatus/processor, comprising:

means for receiving a transmission from a wireless communication device

(= mobile station 102 sends message to RN 108, see col. 7, lines 63-67);

means for establishing a connection between a PCF and a PDSN associated

with the wireless communication device (102) in response to the received

transmission when it contains a registration (PPP context and PPP session, see col.

4, line 64- col. 5,

line 25); and

means for transmitting an inactive message to the PDSN on the connection

when a pre-determined time period has lapsed since a transmission is received from

the mobile station (see col. 7, lines 32-56 and col. 5, lines 59-67).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kwasi Karikari whose telephone number is

571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8566.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Kwasi Karikari
Patent Examiner.

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER